

REMARKS

Claims 1, 2, 4-10, 12-17 and 19-30 are pending in the application.

Claims 1, 2, 4-10, 12-17 and 19-30 have been rejected.

Rejection of Claims under 35 U.S.C. § 103

Claims 1, 2, 4-10, 12-17, and 19-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,570,875, issued to Hegde (“Hegde”) in view of at least U.S. Patent 5,884,080, issued to Blandy (“Blandy”). Applicants respectfully traverse these rejections.

In order for a claim to be rendered invalid under 35 U.S.C. § 103(a), the subject matter of the claim as a whole would have to be obvious to a person of ordinary skill in the art at the time the invention was made. *See* 35 U.S.C. § 103(a). This requires: (1) the reference(s) must teach or suggest all of the claim limitations; (2) there must be some teaching, suggestion or motivation to combine references either in the references themselves or in the knowledge of the art; and (3) there must be a reasonable expectation of success. *See* MPEP 2143; MPEP 2143.03; *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998). The burden is on the Examiner to support a case of obviousness, including whether the prior art references teach or suggest all of the claim limitations. *See* MPEP 706.02(j).

Independent Claims 1, 9, 16, and 23:

Independent Claims 1, 9, 16, and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hegde in view of Blandy. Applicants respectfully traverse these rejections.

Each of the independent claims contains a limitations related to “determining whether to process the group of information for network traffic data collection.” *See, e.g.*, Claim 1. The Office Action cites to Hegde as disclosing this claim limitation. Applicants respectfully submit

that neither the cited sections of Hegde nor the additional references disclose this claim limitation.

Hegde discloses a network router that analyzes packet source and destination information in order to update router tables.

Incoming data packets are examined and the flow (i.e., source and destination) with which they are associated is determined. A flow table contains forwarding information that can be applied to the flow. If an entry is not present in the table for the particular flow, the packet is forwarded to the CPU to be processed. The CPU can then update the table with new forwarding information to be applied to all future packets of the same flow.

Hegde 2:65-3:6; *see also*, Hegde 10:36-44 (updating the flow table if the source of flow is unresolved); Hegde 11:65-12:5 (updating the flow table if the destination address is unresolved). Updating a router flow table, as disclosed in Hegde, is not network traffic data collection as claimed in the pending claims and disclosed in the present Application.

The pending claims themselves distinguish between processing a group of information for network traffic data collection and processing to determine router flow. *See, e.g.*, Claim 4 (“sending the group of information to one or more processing engines to determine routing to the destination and forwarding the group of information according to the determined routing” if a destination is not already in the forwarding table). Applicants have found no disclosure within Hegde of network traffic data collection as claimed. Further, the Office Action does not suggest that Blandy provides any support for this claim limitation.

All of the referenced independent claims contain a limitation for “determining whether to process the group of information for network traffic data collection, wherein said determining is performed according to sampling algorithm that is selected from one of ... selecting the group of information based on examination of traffic attribute data in the group of information.” *See, e.g.*, Claim 1. The Office Action suggests that Hedge discloses the subject matter of this claim

limitation. However, the cited sections of Hegde do not relate to selecting a group of information based on an examination of traffic attribute data in that group of information. As an initial point, as stated above, Applicants respectfully submit that Hegde does not contain any disclosure related to determining whether to process a group of information for network traffic data collection. Since Hegde does not contain such disclosure, Hegde cannot perform such determining according to a sampling algorithm as described in the claim limitation. Further, the cited sections of Hegde are related to (a) a switch engine examining a header in preparation for forwarding a packet, not making a determination of whether to process a group of information for network traffic data collection, and (b) creating a flow table entry for an unresolved source of flow, which is distinct from determining whether to process a group of information for network traffic data collection, as stated above.

The Office Action further suggests that Blandy contains disclosure for the above-stated claim limitation. Applicants respectfully submit that the sections of Blandy cited for such a proposition do not provide such disclosure. In addition, Applicants submit that Blandy presents no disclosure of manipulating network traffic data of any kind, including determining whether to process a group of information for network traffic data collection. As stated in Blandy's Summary of the Invention section, Blandy "is directed to a system and method for monitoring system performance by sampling instructions in a burst mode, rather than once per interrupt." Blandy 2:64-66. The phrase "monitoring system performance" in Blandy refers to determining those software modules within a system that are most frequently executed and which lines of code within those software modules are most frequently executed. *See* Blandy 1:14-23. Blandy suggests that performing such analysis using burst data collection rather than an interrupt-driven method is less intrusive to the system being monitored for reasons such as conservation of data space, avoiding stopping the system during every interrupt (which adversely affects the system

performance), and avoiding giving a “ragged view of the performance data” due to random data point collection.

Blandy does not provide any suggestion that this system performance monitoring method can be used to monitor network traffic data attributes or to perform network traffic data collection. Therefore, Blandy cannot be said to select a group of information based on an examination of traffic attribute data in the group of information in order to determine whether to process the group of information for network traffic data collection as claimed. The sections of Blandy cited by the Office Action relate to: (a) an external interrupt handler that activates a performance monitor if a system interrupt corresponds with a performance timer interrupt (*see* Blandy 5:29-6:25); (b) a single-step execution handler that decrements a burst counter and determines whether the burst counter has reached a zero point (*see* Blandy 6:26-58). These cited sections of Blandy do not relate to selecting a group of data based on information in that group of data, but instead relate to turning on and off a performance monitor based on timing criteria and expiration of a burst counter.

For at least the reasons discussed above, Applicants respectfully submit that neither Hegde nor Blandy, alone or in combination, disclose the above-cited claim limitation.

The independent claims listed above also contain a limitation of “determining whether to process the group of information for network traffic data collection, wherein said determining is performed according to a sampling algorithm that is selected from one of...a burst sampling algorithm.” *See, e.g.*, Claim 1. The Office Action admits that Hegde does not explicitly disclose such a limitation. *See* Office Action, p.3. The Office Action suggests that Blandy discloses this limitation by citing to Figures 2 and 3 of Blandy. Applicants respectfully submit that while Blandy purports to disclose burst mode monitoring of system performance for software, Blandy

does not disclose the above quoted limitation from the independent claims. Specifically, as stated above, Blandy does not teach sampling of network traffic data by any method. Consequently, Blandy does not teach determining whether to process a group of information for network traffic data collection according to a burst sampling algorithm. Rather, Blandy is limited to purportedly disclosing of burst monitoring performance of one or more processors running instructions of software. For at least these reasons, Applicants submit that neither Hegde nor Blandy, alone or in combination, discloses the above quoted claim limitation.

Applicants further submit that there is no teaching, suggestion or motivation to combine Hegde with Blandy either in the references or in the knowledge of the art. Hegde discloses a router that is designed to update routing tables upon a determination that a source or destination of a packet is not present in a flow table. In order to do this, Hegde must monitor every packet of information coming through the disclosed ports. *See, e.g.,* Hegde 5:38-43 ([S]witch module 60 continually monitors each of the ports for incoming traffic when a data packet arrives, it checks the packet header for information that identifies the flow to which the packet belongs.”) (emphasis added). The disclosure in Hegde is clear that the Hegde router must operate in a mode where every packet is analyzed. Hegde performs routing on a packet, not based upon a sampling algorithm, but on whether a source/destination address combination is found in the flow table. If Hegde did not analyze at least the source and destination of each received packet, the Hegde router could not effectively update its flow tables. Thus, a person of ordinary skill in the art would not be motivated to combine the continuously monitoring Hegde router with a disclosure that suggests anything but continuous monitoring.

As stated above, Blandy does not relate to network traffic data collection, but instead is directed toward system performance monitoring to determine which software modules are most frequently executed and which lines of code within those modules are most frequently executed.

Blandy contains no suggestion of monitoring network traffic data or that the burst sampling methods disclosed within Blandy could be applied to network traffic data collection. The Office Action's suggestion to use Blandy because "it would provide a performance system monitor system performance with minimal changes to the operating system and no changes to the application code", ignores the fact that the present application and claims do not relate to operating system performance but rather to network traffic data handling. Thus, a person of ordinary skill in the art would not be motivated to combine Hegde with Blandy.



Applicants further respectfully submit that a person of ordinary skill in the art would not expect success from a combination of Blandy with Hegde. As an initial reason, if a Hegde router did not analyze at least the source and destination of each received packet, then the Hegde router could not effectively update its flow tables. Therefore, a combination of Hegde with any disclosure suggesting anything but analysis of every packet would not be expected to be successful. Secondly, Blandy itself does not suggest that its method can be used to sample network traffic data. Even if an assumption is made that the disclosed method within Blandy can be used for network traffic data, there is no indication within Hegde or Blandy that the use of Blandy's interrupt driven system could function to sample network traffic data, nor does the Office Action present any rationale for the functionality of such an interrupt driven system in sampling network traffic data. Burst sampling as described in the present application relates to sampling a set number of packets (*see, e.g.*, Application, p.14, l.16), while Blandy discloses setting a burst collection time period based on a number of interrupts (*see* Blandy 4:40-49). Thus, even were the Blandy method usable with Hegde, it would not perform the same burst sampling method disclosed and claimed in the present application. Finally, there is no indication within Hegde whether a Hegde router could function having any processor disclosed therein

operating under an interrupt driven sampling method such as that of Blandy. Therefore, a person of ordinary skill in the art would not expect success from combining Hegde with Blandy.

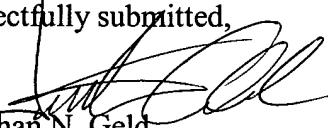
For at least the above reasons, Applicants respectfully submit that the suggested combination of Hegde with Blandy does not present a *prima facie* case of obviousness for the independent claims, and all claims dependent thereon, and that therefore all these claims are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to those claims.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5090.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, COMMISSIONER FOR PATENTS, P. O. Box 1450, Alexandria, VA 22313-1450, on September 21, 2005.	
	
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